UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460



OFFICE OF AIR AND RADIATION

July 20, 2006

Steven Bradford Universal Lighting Technologies 1430 Wall Triana Hwy. Madison, AL 35756

Dear Mr. Bradford:

EPA has reviewed the Testing Documentation submitted by Universal Lighting Technologies for the following lamp/ballast combination, and determined that it meets the Version 4.0 Residential Light Fixture (RLF) specifications indicated below. Universal Lighting Technologies may provide this Letter of Qualification to other manufacturers interested in qualifying the same lamp/ballast combination for ENERGY STAR. Those manufacturers may, in turn, submit a copy of this Letter in lieu of lab testing reports for the given performance characteristics. Please note that this Letter of Qualification only covers the performance requirements in the table below.

Components: Ballast(s) Manufacturer <u>Universal Lighting Technologies</u> Model # <u>CBD-165C-120</u>

Lamp(s) Manufacturer Shanghai Elite Lighting Appliance Co.,Ltd

Model # F582CT6

of Lamps: 1 Indiv. Listed Lamp Wattage: <u>58</u> Lamp Type: <u>CFL</u> Lamp Size: <u>T6</u> Ballast Type: Electronic

Performance Characteristic	Test Result		Meets ENERGY STAR Specification? (Yes/No)			
Combined Lamp & Ballast Requirements:						
System Efficacy	<u>4524.4</u>	Total Lumen Output	Yes			
	<u>65.9</u>	Input Power (watts)	Yes			
	<u>68.68</u>	Lumens Per Watt	Yes			
Lamp Requirements:						
Lamp Life	<u>10,000</u>	Average Rated Hours	Yes			
Lumen Maintenance	<u>83.9</u>	% of initial lumens at 40% rated lamp life (4,000 hour minimum)	Yes			
Color Rendering Index	<u>81.5</u>	CRI	Yes			
Lamp Correlated Color Temp.	<u>2700</u>	Target CCT (degrees Kelvin)	Yes			
	<u>100</u>	% of samples fall within 7-step Mac Adam ellipse				
	<u>GRY10q-3</u>	ANSI-IEC Designated Lamp Base Type	Yes			
Lamp/Lampholder Compatibility	Yes OR No	ANSI-IEC Standardized Lamp	Yes			
	OR N/A	ANSI-IEC Lamp Standard Data Sheet Number				
Lamp Labeling Requirement	\boxtimes	Lamp labeling requirement is met	Yes			

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Ballast Requirements:			
Lamp Start Time	<u>334</u>	Milliseconds	Yes
Power Factor	<u>0.517</u>		Yes
Lamp Current Crest Factor	<u>1.56</u>		Yes
Maximum Recommended Ballast Case Temperature During Normal Operation Inside a Fixture	<u>75</u>	Degrees Celsius	Yes
Electromagnetic and Radio Frequency Interference		Ballast meets FCC requirements for consumer use	Yes
Ballast Frequency	<u>41.2</u>	kHz	Yes
Transient Protection		Ballast meets transient protection requirements	Yes
End of Life Protection (Only required for ballasts with lamps sized T5 & smaller)	Yes OR N/A	Testing requirements are met	Yes
	_OR N/A	Maximum number of lamps shut down when lamp end of life occurs	
Disperie	3-Way Switch	3-Way Switching	Yes
Dimming	\boxtimes	Continuous Dimming	
Safety – Ballasts and "Non Edison base Fluorescent Adapters"	Yes OR N/A	Listed for Safety	RLF or ceiling fan partner using this form in lieu of testing documentation must submit appropriate safety report for portable or hardwired fixtures.
Line Voltage Socket (LVS) Standard Design	This platform does OR does not use the twist-and-lock LVS standard Design		Yes
Line Voltage Socket (LVS) Standard Design with Self-Ballasted Pin-Based Lamp	This platform does OR does not ship with self-ballasted pin-based lamps (i.e., integrated lamp and ballast) that use the twist-and-lock LVS standard design		Yes

As a reminder, the approved lamp/ballast combination does not receive the ENERGY STAR label and can not be promoted as an ENERGY STAR approved product and can not carry the ENERGY STAR logo. Rather, you may promote this approved platform as an acceptable alternate to providing test reports with Residential Light Fixture submittals for ENERGY STAR qualification.

Any RLF or ceiling fan partner submitting this Letter of Qualification in lieu of laboratory testing reports is still responsible for completing and signing a Qualified Product Information (QPI) form for the applicable lamp/ballast combination, and submitting any required test data not covered by this Letter.

Please contact Evan Haines at (703) 218-2535, or myself at (202) 343-9397 with any questions. Thank you for your continued support.

Sincerely,

David Shiller, Product Manager

J. Shill

ENERGY STAR for Residential Light Fixtures

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